AMENDMENTS TO THE CLAIMS:

Please amend claims 2 and 13 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) Method for measuring variation in scalefactor from a predetermined value of a vibrating structure gyroscope having a vibrating structure, a fixed primary and a fixed secondary drive means for putting and maintaining the vibrating structure in vibratory resonance, and a fixed primary and a fixed secondary pick off means for detecting vibration of the vibrating structure, with the drive and pick off means being located radially around the vibrating structure, in which:

the outputs from the drive and pick off means are combined to generate resolved carrier and response mode drives and pick offs, and the resolved carrier and response mode drives and pick offs axes are angularly displaced uniformly around the vibrating structure, with respect to a central axis of the vibrating structure, at a known rate, at which the scalefactor SF_{CAL} is equal to the predetermined scalefactor value SF_{RATE} divided by the Bryan Factor G_B which is a constant set by the vibrating structure geometry and vibration mode shape.

2. (currently amended) A method according to claim 1, in which the vibrating structure is substantially planar, substantially ring shaped structure having substantially identical carrier and response modes.

3. (original) A method according to claim 2, in which a drive signal $V_{CD}\cos 2\alpha$ is applied to the fixed primary drive means at an angle of 0° and a signal $V_{CD}\sin 2\alpha$ is applied to the fixed secondary drive means at an angle of 45° to provide a resultant carrier mode drive force at an angle α.

4. (original) A method according to claim 2, in which a drive signal $-V_{RD}\sin 2\alpha$ is applied to the fixed primary drive means at an angle of 0° and a signal $V_{RD}\cos 2\alpha$ is applied to the fixed secondary drive means at an angle of 45° to provide a resultant response mode drive force at an angle $(\alpha+45°)$.

5. (previously presented) A method according to claim 3, in which the output of the fixed primary pick off means at an angle of 0° and of the fixed secondary pick off means at an angle 45° are combined to give a carrier mode pick off signal $V_{CPO}=(V_{PPO}\cos 2\alpha + V_{SPO}\sin 2\alpha)$ representative of the amplitude of vibrational motion resolved at an angle $(\alpha+270°)$.

6. (previously presented) A method according to claim 3, in which the output of the fixed primary pick off means at an angle of 0° and of the fixed secondary pick off means at an angle 45° are combined to give a response mode pick off signal $V_{RPO}=(V_{SPO}\cos 2\alpha - V_{PPO}\sin 2\alpha)$ representative of the amplitude of vibrational motion resolved at an angle $(\alpha+135°)$.

7. (original) A method according to claim 1, in which the predetermined scalefactor value SF_{RATE} is the scalefactor measured when rotating the vibrating structure gyroscope in a conventional test manner.

8. (original) A method according to claim 2, in which the carrier and response mode drive and pick off axes are angularly displaced uniformly around the vibrating structure at a fixed rate through a fixed angle and then displaced back to start position at the same rate.

9. (original) A method according to claim 2, in which the carrier and response mode drive and pick off axes are angularly displaced around the vibrating structure at a constant rate in a single direction.

10. (original) A method according to claim 2, in which the carrier and response mode drive and pick off axes are angularly displaced uniformly around the vibrating structure at a fixed rate through a fixed angle in an oscillatory manner on either side of a fixed start position.

11. (cancelled)

12. (original) Apparatus for measuring variation in scalefactor from a predetermined value for a vibrating structure gyroscope having a vibrating structure, a fixed primary and a fixed secondary drive means for putting and maintaining the vibrating structure in vibrating resonance, a fixed primary and a fixed secondary pick off means for detecting vibration of the vibrating structure, with the drive and pick off means being located radially around the vibrating structure,

quadrature component and real component loop systems, automatic gain control and phase locked loop systems, a sin/cos pick off resolver for receiving signals from the primary and secondary pick off means and for outputting signals to the quadrature component and real component loop systems and to the automatic gain control and phase locked loop systems, a sin/cos drive resolver for receiving output signals from the quadrature component and real component loop systems and from the automatic gain control and phase locked loop systems and for feeding control signals to the primary and secondary drive means, and an angular displacement control for feeding angular displacement control signals to the sin/cos drive and pick off resolvers to control uniform displacement of the resolved carrier and response mode drives and pick offs axes angularly around the vibrating structure, with respect to a central axis of the vibrating structure, at a known rate.

13. (currently amended) Apparatus according to claim 12, wherein the vibrating structure is substantially planar, substantially ring shaped structure and has substantially identical carrier and response modes.

14. (previously presented) Apparatus according to claim 12 including demodulators for receiving signals from the sin/cos pick off resolver and for outputting demodulated signals to the quadrature component and real component loop systems, remodulators for receiving and remodulating output signals from the quadrature component and real component loop systems, demodulators for receiving signals from the sin/cos pick off resolver and for outputting demodulated signals to the automatic gain control and phase locked loop systems and a remodulator for receiving and remodulating signals outputted by the automatic gain control and

phase locked loop system and for passing a remodulated output signal to the sin/cos drive resolver.